



Availability of Anti-TB Drugs in Medical Shops

A Study in Six RNTCP Districts of Orissa



Asian Information Marketing and Social Research, Bhubaneswar

DANTB

09066

09066

Community Health Cell

Library and Information Centre

367, "Srinivasa Nilaya"

Jakkasandra 1st Main,

1st Block, Koramangala,

BANGALORE - 560 034.

Phone : 553 15 18 / 552 53 72

e-mail : chc@sochara.org

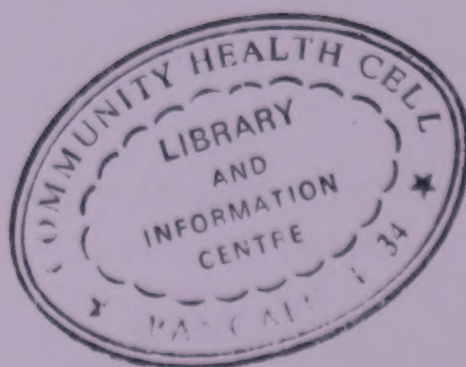
Availability of Anti-TB Drugs in Medical Shops

A Study in Six RNTCP Districts of Orissa

Asian Information Marketing and Social Research
Bhubaneswar

DANTB
2002

Availability of Anti-TB Drugs in
Medical Stores
A Study in the District of ...



DIS-319
09066 P02

Contents

<i>Abbreviations</i>	iv
<i>Executive Summary</i>	v
Chapter 1: Introduction	1
1.1 Background	1
1.2 Research Objectives	2
1.3 Methodology	2
Chapter 2: Feedback from Survey of Medical Shops	7
2.1 Number and Distribution of Medical Shops	7
2.2 Stocking of anti-TB Drugs	10
2.3 Mapping of PHIs and Medical Shops selling anti-TB Drugs in the six RNTCP districts	13
2.4 Patients and Prescriptions	20
2.5 Doctors prescribing anti-TB Drugs	22
2.6 Companies making anti-TB drugs	23
Chapter 3: Feedback from Stockists and Medical Shopkeepers	25
3.1 Feedback from Medical Shopkeepers	25
3.2 Feedback from Stockists	28
CHAPTER 4: Patients' Views	31
4.1 Background	31
4.2 Experience and Opinion of Patients	31
4.3 Findings from the Simulated Relative (of TB patient) Method	33
CHAPTER 5: Summary and Conclusions	37

Abbreviations

AIMS Research	:	Asian Information Marketing and Social Research
DANTB	:	Danida Assisted Revised National Tuberculosis Control Programme
DOTS	:	Directly Observed Treatment, Short-Course Chemotherapy
OPD	:	Out Patient Department
PHC	:	Primary Health Centre
PHI	:	Peripheral Health Institution
RNTCP	:	Revised National Tuberculosis Control Programme
TB	:	Tuberculosis
VSS	:	Veera Surendra Sai Medical College



Executive Summary

One of the important components of the Revised National Tuberculosis Control Programme (RNTCP) is the availability of free medicines in government health institutions. However, it was observed by DANTB that patients with prescriptions were buying anti-TB drugs from medical shops in RNTCP districts. Consequently, it was decided to study the availability of anti-TB drugs in the first six districts covered by RNTCP in Orissa, namely Keonjhar, Mayurbhanj, Sundargarh, Deogarh, Jharsuguda and Sambalpur. The research was conducted by AIMS Research, Bhubaneswar, between September and November, 2001.

The study set out to identify the medical shops selling anti-TB drugs, the various brands of medicines available, the average sales of the drugs, whether or not these are sold with prescriptions, and the type of relationship between the medical shops and the health professionals (doctors) in the area. Data collection methods included a census of all medical shops, interviews with small samples of shopkeepers, stockists and medical representatives and patients being treated by private practitioners.

A total of 1,167 medical shops were identified and visited in the census — 643 in the rural areas and 524 in the urban areas. Of these, 104 shops were attached to private practitioners, 44 of which were rural shops. Only 198 rural medical shops reported the presence of a private practitioner in the area, at an average distance of 2.9 km.

About 62 percent of the shops were stocking anti-TB drugs — 46 percent in the rural areas and 81 percent in the urban areas. Anti-TB drugs accounted for about three percent of their sales.

Of the 447 shops (38%) with no anti-TB drugs, 162 shops said they have stopped stocking them mostly because of lack of demand and the availability of free drugs. Only about one-fifth of these 162 shops were in the urban areas. On the whole, about seven percent of the total shops in urban areas had stopped stocking anti-TB drugs, compared to 20 percent of shops in the rural areas.

Three-fourths of the medical shops stocking TB medicines said they have regular TB patients albeit fewer than five regular patients. Less than five percent of shops said they receive patients without prescriptions. Only eight shops said there were patients in the last one year who just asked for “drugs for TB”. A total of 519 shops were able to recall the names of the doctors prescribing anti-TB drugs, with a majority mentioning one or two doctors.

Reasons given by shopkeepers as to why patients pay for treatment and buy medicines when they can get them free included: higher purchasing power of people, longer distance to government health centres, long waiting time to see doctors, non-availability of new drugs, and the perceived inferior quality of government supplied medicines. They mentioned a growing tendency among patients to seek private treatment in the belief that only when they are paid will doctors provide better service and effective medicines. A few medical shops asserted that doctors encourage patients to see them privately, but only after they have judged the patients’ paying capacity.

All of the 13 stockists interviewed denied entering into agreements with either the medical shops or the doctors to promote their brands of anti-TB drugs. There was consensus that demand for anti-TB drugs has fallen in the last one to three years, mainly in the rural areas, after the implementation of RNTCP. The decrease was

quantified at 10 percent to 60 percent of the pre-RNTCP demand. The stockists thought that TB patients turn to private treatment because they are not aware of free medicines, some (who can pay) prefer private doctors, government supplied medicines are considered to be of poor quality, and some specialist doctors do not consider the RNTCP dose and regimen as appropriate.

Researchers visited 30 medical shops (five in each district), and asked for TB medicines, without mentioning the name of any medicine. All the shops sold them medicines, but only half were anti-TB drugs. Other medicines sold were anti-bacterials, vitamins, haemostatics, anti-haemorrhagics and syrups. The shopkeepers advised that the patient's sputum be tested or chest x-ray done (15 shops each) and that they consult a doctor. Twenty-one of the 30 shops suggested the patient take free treatment from a government health centre. One-third of the shops refused to give a receipt for these medicines.

In summary, the study found that:

- 62 percent of medical shops stock anti-TB drugs — 46 percent in the rural areas and 81 percent in the urban areas;
- 20 percent of rural medical shops and seven percent of urban medical shops had stopped stocking anti-TB drugs, reportedly because of RNTCP;
- medical shopkeepers thought increasing numbers of patients felt they had to pay doctors to ensure good treatment;
- it was possible to buy anti-TB drugs without prescriptions, even though shops reported this was rare;
- equal numbers of shops approached without a prescription advised a sputum test or a chest x-ray for the patient.



1

Introduction and Methodology

1.1 Background

- 1.1.1 The Revised National Tuberculosis Control Programme (RNTCP), based on the five-point Directly Observed Treatment, Short-course (DOTS) strategy, is presently being implemented through the government health system in the predominantly tribal districts in Orissa, with support from DANTB. Starting in Keonjhar, Mayurbhanj and Sundargarh districts in 1997-98, the project expanded to Deogarh, Jharsuguda and Sambalpur in 2000, and then to four more districts (Rayagada, Koraput, Malkangiri and Nawarangpur) in early 2001.
- 1.1.2 An important element of the revised strategy for tuberculosis (TB) control is the availability of free anti-TB drugs in government health institutions. The anti-TB drugs are procured by DANTB and distributed free of cost to the RNTCP districts. However, on observation it was found that some TB patients were buying medicines from medical shops with prescriptions from medical practitioners. Consequently, DANTB decided to do a market survey of the availability of anti-TB drugs in medical shops in the first six RNTCP districts. The survey was undertaken by AIMS Research, a research organisation in Bhubaneswar, during September to November, 2001.

1.2 Specific Research Objectives

The specific objectives were to determine:

1. What is the extent to which anti-TB drugs are available?
2. Which medical shops (towns or rural areas) stock them?
3. How do the shops get the medicines?
4. What are their average sales?
5. Are the anti-TB drugs sold with or without prescription and are the prescribers government doctors or private practitioners?
6. What is the relationship between the medical shops and the health facilities' providers?

1.3 Methodology

1.3.1 The following methods were adopted to collect the information.

i) Census of drug shops

Since the study had a diagnostic function, i.e., to identify peripheral health institutions (PHIs) where TB patients are buying medicines in spite of the provision of free drugs in the government health system, a census of all medical shops in the six districts was felt necessary. If the turnover of TB drugs was higher than average in certain shops, this would indicate that the service in the nearby PHI was not satisfactory.

The list of all medical shops in the six districts was not readily available. More than one source was explored to generate a list of shops. 'Medipages', which is published by a private agency and provides a district-wise list of shops, was consulted.

A structured questionnaire was used to collect the data. The following information was sought from medical shops:

- Whether TB drugs are available?
- Current stock position of all the relevant drugs.

- Sale records of each drug in the last month and the average monthly turnover.
- Names of doctors who prescribe these drugs (government and private practitioners).

ii) In-depth Interview

Some of the information was ascertained through detailed interviews with

- a) Shopkeepers, stockists and medical representatives of pharmaceutical companies in the six RNTCP districts.
 - 30 medical shopkeepers, five in each district, both rural and urban.
 - All medical representatives selling anti-TB drugs.
 - All stockists for anti-TB drugs in Orissa.

Purposive sampling method was used to select respondents for these in-depth interviews. They had to have knowledge about the issues and also be willing to discuss them.

The issues addressed were:

- Mode of procurement of TB drugs by the medical shops.
 - Relationship between medical shops and health providers.
 - Any diversion of patients/drugs from the government health system to the private sector.
- b) It was originally planned to interview doctors, mainly in the VSS Medical College Hospital, Burla, as it was known that they prescribed medicines that were different from the RNTCP drugs. Specialists in medicine, surgery, and TB/ Chest

were to be interviewed. They were to be questioned about their opinion of RNTCP drugs, and the relative advantages of the drugs (and the regimen) they prescribed. Case histories were to be presented to the specialists, and a diagnosis sought from them. About 30 specialists were to be interviewed. However, when the researchers reached the Burla Medical College, the doctors were all attending a training programme on RNTCP. As a result, it was decided not to interview them.

iii) Simulated patient/relative method

One of the objectives of the study was to find out if medical shops were selling TB medicines without prescriptions. For this the simulated patient method was used to collect the information.

This method entailed a researcher acting out the part of a TB patient or a relative going to a medical shop in order to buy medicines without prescriptions. A fool-proof story line was fabricated, and the researchers were trained to answer all possible questions that the medical shops were likely to ask.

A total of 30 shops, five in each district, were selected randomly.

iv) Exit interview with patients

To get the patients' perspective on the issues under study, separate interviews were to be done with TB patients who bought the anti-TB drugs. Researchers attempted to do exit interviews outside medical shops without any success. Thereafter information on the patients' whereabouts were collected from the medical

shops and they were traced to their places of residence and interviewed. They were asked:

- Why were they buying medicines when the treatment is free under the RNTCP?
- Is the decision to buy anti-TB drugs their own (for various reasons like not knowing the government health system offered free treatment, or because they had no faith in government medicines and services, did not want to undergo DOT in villages where they lived because of the stigma attached to TB, a possible earlier negative experience with RNTCP/DOT system) or on the advise of either doctors in the government health system or private practitioners.
- What was the route followed to private practitioners/medical shops?

Thirty patients were to be interviewed (five in each district) from 30 shops selected at random. However, only six patients could be interviewed.

1.3.2 Thus the total sample for the study included:

- Census of all drug shops in the six districts
- In-Depth interviews with
 - 30 shopkeepers
 - 13 stockists
- Simulated patient visits
 - 30 medical shops
- Exit Interviews with
 - six patients



Feedback from Survey of Medical Shops

2.1 Number and Distribution of Medical Shops

2.1.1 A total of 1,167 medical shops were covered in the survey¹. The maximum number of shops was in Sundargarh district (318), followed by Mayurbhanj (280), Keonjhar (229), Sambalpur (204), Jharsuguda (99), and Deogarh (37).

2.1.2 **Size of the shop:** The researchers, with the assistance of the shopkeeper, did a rough estimate of the total area of each medical shop. The average size was estimated at 135 sq.ft. The smallest shop was just 50 sq.ft., and the largest, 440 sq.ft. About 30 percent of the medical shops were within 100 sq.ft., and 63 percent, between 100 and 200 sq.ft.

Table 2.1

Size of the shop	
(sq.ft)	(%)
Up to 100	30.0
101-200	62.6
201-300	6.6
300-400	0.7
>400	0.1

2.1.3 **Types of drugs stocked and sold:** All the medical shops were stocking essential drugs, antibiotics, multi-vitamins and tonics. About 82 percent had some type of Ayurvedic drugs also. Nearly half the shops were found to be stocking veterinary drugs. Only four shops kept Homeopathic drugs. Of the 1,167 shops surveyed, 720 had anti-TB drugs in stock. Over 70 percent of the shops in Sambalpur, Jharsuguda, and Sundargarh had anti-TB drugs, as compared to 59 percent in Mayurbhanj, 41 percent in Keonjhar, and 32 percent in Deogarh.

¹ The list of shops has been made available to the Government of Orissa

Table 2.2

Types of drugs stocked in the shops

Type of Drugs	Sambal-pur	Jharsu-guda	Deogarh	Sundar-garh	Mayur-bhanj	Keonjhar	Total
Essential	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Antibiotic	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Multi- vitamin & Tonic	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Anti-TB	71.6	70.7	32.4	72.6	59.3	41.5	61.7
Ayurvedic	88.7	92.9	91.9	76.7	84.6	72.1	81.7
Veterinary	69.1	60.0	62.2	23.3	56.4	52.8	49.4
Homeopathic	-	-	2.7	0.3	0.7	-	0.3
Total	204	99	37	318	280	229	1,167

Table 2.3

Proportion of sales

Type of Drugs	Average (%)
Essential	36.0
Antibiotic	33.0
Multi- vitamin & Tonic	19.0
Anti-TB	3.0
Ayurvedic	6.0
Veterinary	3.0
Homeopathic	0.03

The proportion of total sales of different types of drugs was calculated. Essential drugs accounted for 36 percent, antibiotics for 33 percent, vitamins and tonics for 19 percent, Ayurvedic medicines for six percent and veterinary drugs for three percent. Anti-TB drugs were reported to account for an average of three percent of total sales of the medical shops.

2.1.4 Distance of shops from health institutions: One hundred and four of the 1,167 shops surveyed were found attached to the clinic of a private practitioner, 44 shops in rural areas and 60 shops in urban areas. The average distance of the rural shops to the nearest PHI was calculated and was found to be 2.0 km. Wherever there was a private practitioner near a drug shop in the rural area (198 shops), the distance of the shop to the nearest private practitioner was recorded and the average distance was found to be 2.9 km.

The distance from each shop to the nearest PHI was also plotted. About 55 percent were found to be within 1.0 km of the PHI, while 17 percent were between 1.0 and 2.0

kms. About 18 percent of the shops were between 3.0 and 5.0 kms of the PHI. An estimated seven percent were between 6.0 and 10.0 kms, and three percent were more than 10.0 kms away.

Table 2.4

Proximity of shops to health institutions in rural areas	
Health Institutions	Average distance (in kms)
PHI (rural)	2.0 for 643 shops
Private practitioner	2.9 for 198 shops

Distance was also analysed separately for shops in the urban and rural areas. Some 66 percent of shops in rural areas were within 1.0 km, compared to 40 percent in urban areas. In the urban areas, 55 percent of shops were between 1.0 and 5.0 kms, compared to 19 percent in the rural areas.

Table 2.5

The distance of each shop to nearest PHI

Distance	District						Area				Total	
	Sam-balpur	Jhar-suguda	Deo-garh	Sund-argarh	Mayur-bhanj	Keon-jhar	Rural		Urban		Total	
							No.	%	No.	%	No.	%
Up to 1km	48.5	33.3	45.9	42.5	73.6	64.2	426	66.3	211	40.3	637	54.6
1 -2 kms	24.5	28.3	32.4	18.6	12.1	7.0	77	12.0	122	23.3	199	17.1
2+ -3 kms	11.3	12.1	-	11.0	4.6	10.9	15	2.3	93	17.7	108	9.3
3+ -5 kms	10.8	18.2	5.4	11.6	1.4	7.9	31	4.8	70	13.4	101	8.7
5+ -7 kms	2.9	4.0	5.4	6.6	4.3	5.7	35	5.4	23	4.4	58	5.0
7+ -10 kms	0.5	-	-	5.3	1.4	2.2	24	3.7	3	0.6	27	2.3
> 10 kms	1.5	4.0	10.8	4.4	2.5	2.2	35	5.4	2	0.4	37	3.2
Total	204	99	37	318	280	229	643		524		1,167	

2.1.5 **How old is the shop:** On an average, a medical shop was found to be eight years old, the minimum age being one month and the maximum being 60 years. About a quarter of the shops were within two years old, whereas over a third were between five and 10 years. Five percent were reported to have been started more than 25 years ago.

2.2 Stocking anti-TB drugs

2.2.1 How many shops stock anti-TB drugs: Overall, 720 shops (62%) out of the 1,167 shops in the six districts currently stock anti-TB medicines. It was also observed that over half the shops in Deogarh (68%) and Keonjhar (59%) did not stock anti-TB drugs, especially so in rural areas.

Overall, 81 percent of medical shops in urban areas stocked anti-TB drugs, compared to 46 percent in the rural areas.

Table 2.6

Number of years since the shop was started

Year	%
1	13.9
2	11.3
3	8.8
4	6.7
5-7	20.7
8-10	13.3
11-15	10.4
16-25	8.3
>25	5.1
< 1 month	1.5

Table 2.7

Shops currently stocking anti-TB drugs

Particulars	Sambalpur			Jharsuguda			Deogarh			Sundargarh		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
Stock anti-TB drugs	54.3	85.7	71.6	56.9	85.4	70.7	12.5	62.9	32.4	52.2	87.5	72.6
Do not stock	45.7	14.3	28.4	43.1	14.6	29.3	87.5	30.8	67.6	47.8	12.5	27.4
Total	92	112	204	51	48	99	24	13	37	134	184	318

Particulars	Mayurbhanj			Keonjhar			Total		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
Stock anti-TB drugs	53.3	72.9	59.3	26.5	68.3	41.5	45.9	81.1	61.7
Do not stock	46.7	27.1	40.7	73.5	31.7	58.5	54.1	18.9	38.3
Total	195	85	280	147	82	229	643	524	1,167

Table 2.8

Whether shops currently without anti-TB drugs had stocked them earlier							
Stocked previously	Sambalpur	Jharsuguda	Deogarh	Sundargarh	Mayurbhanj	Keonjhar	Total
Yes	34.5	34.5	32.0	42.5	40.4	30.6	36.2 (162)
No	65.5	65.5	68.0	57.5	59.6	69.4	63.8 (285)
Total	58	29	25	87	114	134	447

The 447 shops without TB medicines were asked whether they had ever kept stocks. One hundred and sixty two shops (36%) said they had. This shows that three-fourths of the medical shops have at some point kept anti-TB drugs, compared to the present 62 percent. About 28 percent (46) of the 162 shops which had discontinued were in Mayurbhanj, followed by Keonjhar (41 shops, 25%), Sundargarh (37 shops) and Sambalpur (20 shops).

Most of the 162 shops which had stocked anti-TB drugs earlier were in the rural areas (79%). Overall, while 20% of

Table 2.8A

Distribution of shops who had stocked anti-TB drugs earlier												
Particulars	Sambalpur			Jharsuguda			Deogarh			Sundargarh		
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
Stocked earlier	75.0	25.0	100	80	20	100.0	50.0	50.0	100.0	83.8	16.2	100
Particulars	Mayurbhanj			Keonjhar			Total					
	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban	Total
Stocked earlier	82.6	17.4	100.0	78.0	22.0	100.0				(128)	(34)	(162)
										79.0	21.0	100.0

the medical shops in the rural areas have stopped stocking anti-TB drugs, only seven percent of the shops in urban areas have done so.

The 162 shops that no longer keep stocks were asked when they had stopped. Twenty three percent have stopped within the past year, and another 30 percent stopped between one and two years ago. The minimum was one month and the maximum was 10 years.

Lack of demand/prescriptions was cited by 37 percent of the shops as the main reason for taking anti-TB medicines off the shelf. This was the main reason in Sambalpur (70%) and Keonjhar (61%). Seventy percent of shopkeepers said they stopped because of the government’s free anti-TB medicines.

Table 2.9

When shops stopped stocking anti-TB drugs	
Months	%
1-6	6.2
4-6	5.6
7-12	11.1
13-24	29.6
25-36	24.1
37-60	14.2
>60	9.3

Table 2.10

Reasons for stopping stocking anti-TB drugs

Reasons	Sambalpur	Jharsuguda	Deogarh	Sundargarh	Mayurbhanj	Keonjhar	Total
Lack of demand/ prescription	70.0	30.0	37.5	13.5	21.7	61.0	37.0
Govt. supply	35.0	70.0	75.0	86.5	80.4	58.5	69.8
No doctor at PHC	-	-	-	-	-	4.9	1.2
Far distance from town and hospital	-	-	-	-	-	2.4	0.6
Poor people can't buy	-	-	-	-	-	2.4	0.6
Total	20	10	8	37	46	41	162

Table 2.11

Reason for not stocking TB drugs							
Reasons	Sambalpur	Jharsuguda	Deogarh	Sundargarh	Mayurbhanj	Keonjhar	Total
Lack of demand/ prescription	52.6	47.4	47.1	52.0	32.4	53.8	47.4
Govt. Supply	47.4	47.4	47.1	40.0	67.6	65.6	56.8
New shop	2.6	-	-	8.0	5.9	-	3.2
Management	-	5.3	-	-	-	-	0.4
decides which drugs to be stocked							
Due to no testing facility	-	-	11.8	8.0	1.5	-	2.5
Doesn't want to risk treating TB patient	-	-	-	4.0	2.9	-	1.4
Can't say	5.3	-	-	-	-	-	0.7
Total	38	19	17	50	68	93	285

The 285 shops that had never stocked the treatment for TB were also asked why. About 57 percent said they saw no point because of the availability of government medicines, while the rest said there was no demand for TB drugs.

2.3 Mapping of PHIs and Medical Shops Selling anti-TB Drugs in the Six RNTCP districts

Using the database on rural medical shops in the six districts, the exact location of shops selling anti-TB drugs was mapped. The maps also show the location of PHIs in the rural areas. These depict the spatial distribution of rural medical shops and PHIs in the six districts. As there may be more than one shop in some villages, the number of shops has also been marked on the legend representing medical shops. Some shops were not pin-pointed because the maps did not locate all the villages in the six districts that were surveyed for the

Table 2.12

District population, villages, medical shops and their location

District	Total population	Rural population	Inhabited villages	Rural medical shops			Total GIS village points	Urban medical shops (not shown in maps)	
				Total	With anti-TB drugs			Total	With anti-TB drugs
					Shown in maps	Not located in maps			
Sambalpur	928,889	674,617	1,274	92	50	2	318	112	96
Jharsuguda	509,056	323,738	353	51	29	3	136	48	41
Deogarh	274,095	254,272	697	24	3	0	150	13	9
Sundergarh	1,829,412	1,200,520	1,688	134	70	4	493	184	161
Keonjhar	1,561,521	1,348,577	2,067	147	39	7	374	82	56
Mayurbhanj	2,221,782	2,066,375	3,718	195	104	1	523	85	62
Total	7,324,755	5,868,099	9,797	643	295	17	1994	524	425

study. The exact numbers of shops that have not been identified in each district are indicated in Table 2.12.

The GIS maps locate only the large villages. However, though only 1,994 of the 9,797 inhabited villages are located, only 17 of the medical shops selling anti-TB drugs in rural areas could not be shown on the maps, confirming that these medical shops are mainly in the large villages.

The map of Sambalpur shows 20 PHIs. The map shows a greater concentration of shops stocking TB medicines in the rural areas around Sambalpur town, which is a more developed area. There are very few stores in Rairakhol, Naktideul, and Jujumara areas. Four villages in the district have five shops each.

Location of medical shops stocking Anti-TB drugs in rural areas of Sambalpur



The map of Jharsuguda shows an almost even distribution of shops across the breadth of the district, but its southern part, bordering Sambalpur and Bargarh districts, does not show any store or PHI because that is the area of the Hirakud reservoir. The map indicates 11 PHIs in the district. Most villages have only one medical shop.

Deogarh, which is the smallest district in the state, has six PHIs and only three medical shops. Two of them are far from the PHIs.

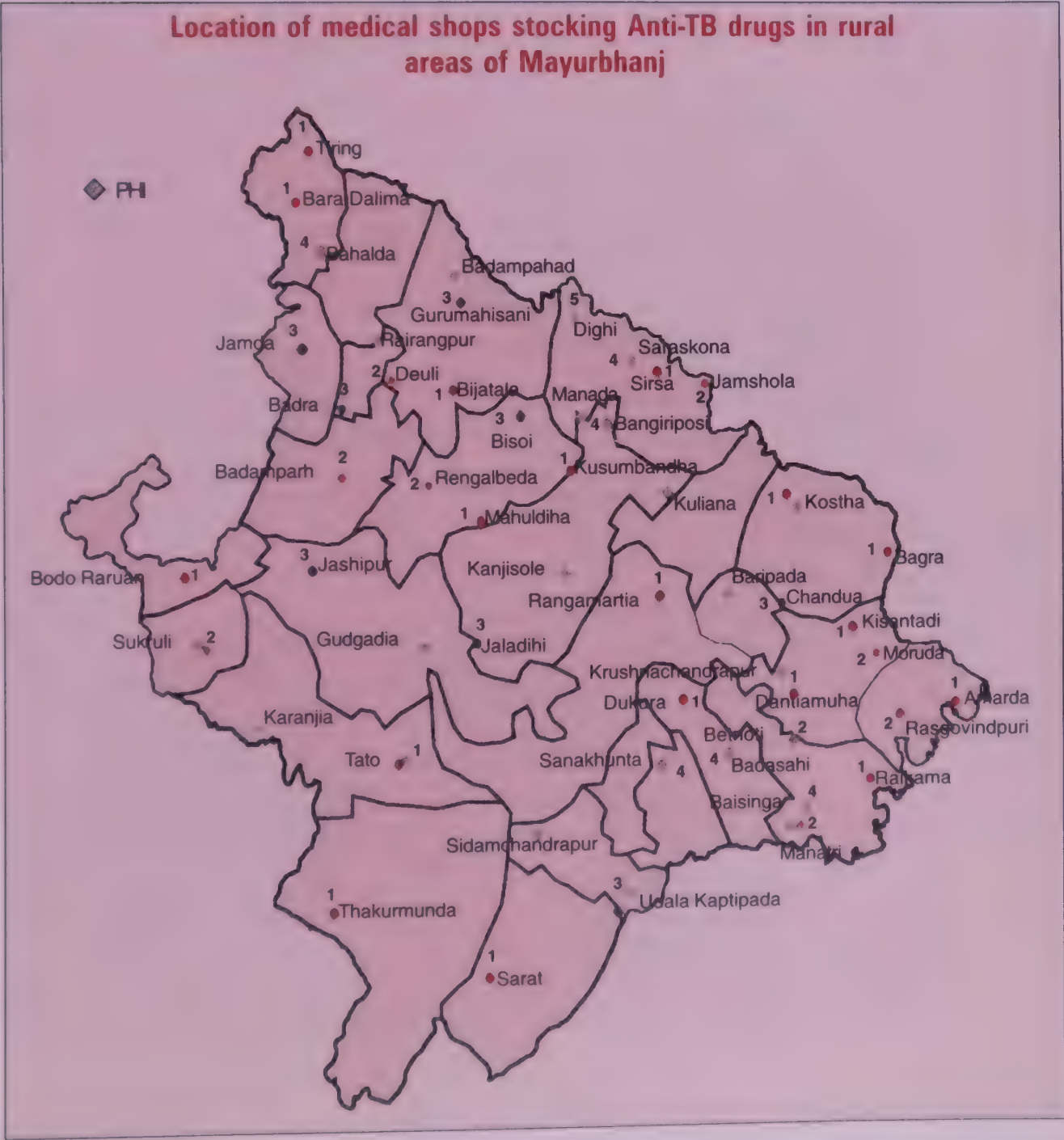
Location of medical shops stocking Anti-TB drugs in rural areas of Jharsuguda



Location of medical shops stocking Anti-TB drugs in rural areas of Deogarh



The map of Mayurbhanj district shows that the district is fairly well covered with PHIs and medical shops, except in the Similipal reserved forest area. Altogether 47 villages have drug shops selling TB medicines.. There are 44 PHIs in the district. The rural areas around Betnoti and Baripada have a comparatively large concentration of both PHIs and shops selling TB drugs.



Keonjhar district appears well covered with PHIs and medical shops, concentrated relatively more in the Anandpur area on one end, and the Joda-Barbil area on the other end. However, besides these two areas, only six villages across the district have medical shops with TB medicines.



2.4 Patients and Prescriptions

2.4.1 **Patients buying anti-TB drugs:** A total of 547 shops reported that they have regular TB patients (48% of total shops, and 76% of shops with stocks). About 44 percent said they had three to five patients.

Table 2.13

Percentage of TB patients currently buying medicines

Patients	Sambalpur	Jharsuguda	Deogarh	Sundargarh	Mayurbhanj	Keonjhar	Total
1-2	26.1	20.8	60.0	28.0	47.1	37.7	32.9
3-5	46.2	52.1	30.0	42.3	38.7	47.8	43.7
6-10	23.5	20.8	10.0	21.4	9.2	7.2	17.2
11-20	4.2	6.3	-	6.0	5.0	2.9	4.9
>20	-	-	-	2.2	-	4.3	1.3
Total	119	48	10	182	119	69	547

Do patients have prescriptions or are medical shops playing an active role in deciding on the medicines to be given? Overall, 95 percent of the shops reported that all patients come with prescriptions

Table 2.14

Percentage of patients who come with prescription

Prescription	Sambalpur	Jharsuguda	Deogarh	Sundargarh	Mayurbhanj	Keonjhar	Total
Yes	97.5	97.9	100.0	96.7	87.4	100.0	95.4
No	2.5	2.1	-	3.3	12.6	-	4.6
Total	119	48	10	182	119	69	547

Of the 25 shops that said not all the patients that came to buy medicines had prescriptions, nine said half the patients had not consulted a doctor. Twelve shops said none of their customers ever have prescriptions. How do shopkeepers select medicines and know about doses and regimen? Forty four percent said the patients show empty packs to identify the medicines they want. The remaining ask for the drugs by name.

Table 2.15

Process by which patients without prescription select medicines					
Patients	Sambalpur	Jharsuguda	Sundargarh	Mayurbhanj	Total
Patients show the empty pack	100.0	100.0	-	46.7	44.0
Patients know the name of the medicines	-	-	100.0	53.3	56.0
Total	3	1	6	15	25

Fifty-nine medical shops could recall at least one customer asking for anti-TB drugs without a prescription in the last one year. Fifty-one customers did not have prescriptions, and asked for the medicines by name. Only eight shops had the experience of patients asking for just “TB drugs”.

Table 2.16

Experience with patients without prescriptions in last one year							
Particulars	Sambalpur	Jharsuguda	Deogarh	Sundargarh	Mayurbhanj	Keonjhar	Total
No customer without prescription	91.8	97.1	100.0	91.8	88.0	81.1	90.1
Come with medicine names	2.7	1.4	0.0	6.1	11.4	13.7	7.1
Ask for TB medicines	0.7	0.0	0.0	0.4	3.6	0.0	1.1
No customer for TB drugs	5.5	1.4	0.0	2.2	1.8	5.3	3.1
Total	146	70	12	231	166	95	720

A quarter of the 51 shops remembered only one patient asking for the medicines by name. Ten shops reported there were five such customers in the last year.

Table 2.17

District-wise shops reporting customers asking for TB medicines
by name within last one year

No. of Customers	Sambalpur	Jharsuguda	Sundargarh	Mayurbhanj	Keonjhar	Total
1	-	-	6	2	5	25.5
2	2	1	4	3	6	31.4
3	1	-	2	4	2	17.6
4	1	-	1	1	-	5.9
>5	-	-	1	9	-	19.6
Total	4	1	14	19	13	51

Of the eight shops that said patients have asked for “TB medicines”, two shops reported one such case each last year. Four shops had two to three such cases each, while two shops reported five such patients each.

2.5 Doctors prescribing anti-TB Drugs

2.5.1 Doctors prescribing anti-TB drugs: Five hundred and nineteen medical shops gave the names and other details of doctors whose patients buy medicines. Sixty two percent identified one or two doctors, while 34 percent named between three and five doctors each.²

Table 2.18

Number of doctors who prescribe anti-TB drugs

No. of doctors	Sambalpur	Jharsuguda	Deogarh	Sundargarh	Mayurbhanj	Keonjhar	Total
1-2	48.2	45.7	100.0	56.2	78.0	83.6	62.4
3-5	47.3	52.2	-	37.6	21.0	16.4	34.1
6-10	4.5	2.2	-	6.2	1.0	-	3.5
Total	112	46	10	178	100	73	519

² The list of doctors has been made available to the Government of Orissa

2.6 Companies making anti-TB drugs

2.6.1 Which brands sell: Shopkeepers were first asked to name the pharmaceutical companies that they deal in. A total of 37 drug companies were identified. Then they were asked to specify the percentage of sales accounted for by each company. Lupin emerged the market leader with about 62 percent of the total sales of all the anti-TB drugs. Macleods followed with about eight percent, Novartis with seven percent, and Plethico, 5.5 percent. Together, these four companies account for about 82 percent of the total volume of sales of anti-TB drugs. The others lower down on the rung are Alkem, Concept, Sarabhai, Unichem, Warner, and Wockhardt.

Table 2.19

Market share of top ten anti-TB drug companies

SL. NO	COMPANY	average off take%
1	LUPIN	61.8
2	MACLEODS	7.8
3	NOVARTIS	6.8
4	PLETHICO	5.5
5	UNICHEM	2.6
6	ALKEM	2.4
7	SARABHAI	2.2
8	CONCEPT	2.0
9	WARNER	1.6
10	WOCKHARDT	1.1





Feedback from Stockists and Shopkeepers

3.0 Shopkeepers and stockists were interviewed on several aspects of procurement and sale of anti-TB drugs in the six RNTCP districts.

3.1 Feedback from Medical Shopkeepers

Researchers talked to five shopkeepers each in Keonjhar, Mayurbhanj, Sundargarh, Sambalpur, Jharsuguda and Deogarh.

3.1.1 **Basis of procurement of medicines for the shop:** Most medical shops take procurement decisions on the basis of the demand and what doctors prescribed. Other factors which influenced their decision were trade margins, commissions, bonus, and other product incentives. There was also the quality of service extended by medical representatives, and the payment plan agreed upon by the two parties.

3.1.2 **Role of medical representatives/stockists:** The majority of shopkeepers said medical representatives and stockists are sources of information, and play no role in deciding what medicines they keep. Some added that medical representatives lobby with doctors attached to the shops about their products. There were also medical representatives who insist that medical shops must stock their products, while others inform about their new products and request that they be stocked.

3.1.3 Role of doctors/staff of government health centres: There was general agreement that government health centres do not directly influence stock-keeping decisions.

3.1.4 Relationship between drug shops, doctors or health centres: A little more than half of the shopkeepers interviewed felt there was no relationship. The rest revealed that medical shops often provide clinic space for doctors, and they in turn make it a point to advise their patients to buy medicines from the same shop. Sometimes the doctors receive commissions or attractive gifts in return for sending customers. There were also times when doctors would prescribe medicines that would help shopkeepers to clear out their dead stock.

3.1.5 Sale of government-supply medicines or contraceptives in drug shops: Over 80 percent said they had no knowledge of the practice. The rest of the shopkeepers said they have heard that it happens in remote areas where the people are not aware of the availability of free drugs at government health centres. Some medical shops said the government medicines and contraceptives were of poor quality. Consequently, no drug shop was interested in stocking these.

3.1.6 Why do people buy medicines when they are available free of cost: Medical shops cited two reasons: one, people's purchasing power has gone up and two, there is a lingering feeling that government medicines are free because they are sub-standard. An additional reason is the shortage of certain drugs in government health centres, forcing patients to buy them from outside.

A few shopkeepers said patients come to them mainly for higher order antibiotics and new compositions or brands of drugs, which are not stocked in the government health centres. At two medical shops they said people were put off

by the long distance to government health centres. Also, they do not want to wait in long queues for the doctor or to collect the medicines.

3.1.7 Government doctors and private patients: Do government doctors tell patients to see them at home? Two or three shopkeepers said that while it may be happening, they had not heard of such cases. A little less than half of the medical shops said patients were increasingly going to private doctors because they felt that doctors are more serious about examination and what they prescribe when they are paid consultation charges. Only two shopkeepers confirmed that government doctors divert patients from the out patient departments (OPDs) to their private practice. Four of them said that doctors do this indirectly by arriving late and leaving early from the OPD. However, none of them could cite any specific instances of this. They thought it is obvious that those who prescribe at their residence or clinic prescribe medicines that can only be bought from medical shops. However, most doctors would first judge the patients' capacity to pay before calling them home or sending them to medical shops.

3.1.8 Doctors and commissions from medical shops: Eight out of 10 medical shops said while doctors may be getting commissions in big cities like Cuttack and Bhubaneswar, from either the shops or the big drug companies, it did not happen in their area. A few of them said that doctors do get some monetary benefits or commissions from big drug companies or for sending patients to specific drug shops.

3.1.9 Are medical shops aware of the free anti-TB treatment in six districts: About 24 of the 30 shopkeepers answered yes. However, there was confusion about the spread of the RNTCP programme. They seemed to think the treatment was free all over Orissa. Only eight knew it was only in the RNTCP districts, but they could not name all the districts. It

was apparent that their information on the programme was only limited to their district and the neighbouring one or two districts. Only six could identify the names of some of the drugs given free of cost at government health centres as part of DOTS.

3.1.10 Are government TB medicines being diverted to, or sold in, shops: All the shopkeepers were of the unanimous opinion that government doctors never divert medicines to medical shops, nor did they know of such sales.

3.1.11 Sale of medicines to TB patients diverted from government hospitals: The majority of shopkeepers (28 out of 30) said they had no way of knowing because they do not question their customers. Two patients had resorted to buying TB drugs because it was out of stock in the government hospital. Another TB patient had turned up at the medical shop via a private practitioner because the DOT requirement clashed with his work in the transport business and the health worker could not help by giving him drug supplies for 15-day periods. But the two shopkeepers insisted that these patients had not been deliberately diverted to their shops.

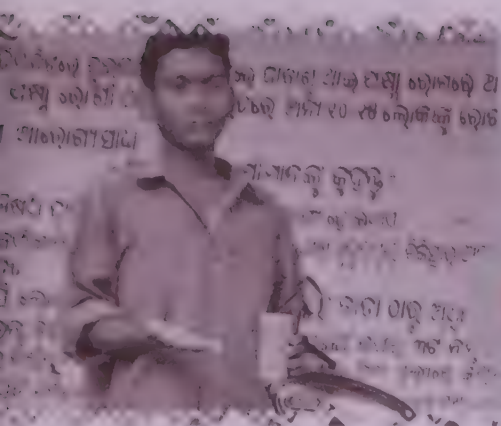
3.1.12 Whether ever sold government TB medicines: All 30 medical shops denied they had ever sold TB medicines illegally siphoned from the government system..

3.2 Feedback from Stockists

A total of 13 stockists were interviewed in five RNTCP districts, as Deogarh comes under Sambalpur and does not qualify to have its own stockists. Shopkeepers explained that a district must have 75 drug retailers to have its own stockists.

- 3.2.1 Secret deals with doctors or medical shops to promote TB drugs:** All the stockists denied doing deals of any kind for the promotion of their brands.
- 3.2.2 Demand for TB drugs in the market:** There was agreement that medical shop sales had been affected by the introduction of free TB drugs under RNTCP. A stockist in Sundargarh said people were accessing the government system much more ever since the Rourkela steel plant turned sick and workers stopped being paid salaries. A stockist in Sambalpur district felt there has been a gradual increase of 10-15 percent in demand for anti-TB drugs in the last one year, after an initial decrease in demand after the introduction of RNTCP. According to some others, the demand pattern has been sluggish in the interior areas but stable in the urban areas where people have more purchasing power. When asked how much RNTCP has affected demand, their replies varied: some said 25 percent, others 40 percent and still others, 60 percent. One stockist in Keonjhar said his sales have come down to 10 percent of earlier sales. Eight of the 10 stockists said the decline set in since the last three years.
- 3.2.3 Affected brands:** All brands of TB medicines seem to have been affected. But one stockist in Mayurbhanj said the AKT group of drugs from the LUPIN company has survived intact while another in Sambalpur reported that the demand for anti-TB drugs of companies like LUPIN and PLETHICO has remained stable.
- 3.2.4 Are stockists aware of free TB medicines in six districts:** Ten of the 13 stockists were aware of RNTCP but could not identify how many districts are covered. Three stockists seemed not to know RNTCP, because they said TB medicines are available free of cost all over Orissa.

- 3.2.5 Reason for buying medicines when they are available free of cost:** Three stockists said patients buy because they are unaware that drugs are free at government health centres. Four others said people have no faith in government medicines. The remaining six stockists were of the view that rich or upper class patients prefer to go to private doctors. Stockists in Sambalpur pointed out that specialist doctors at the VSS Medical College, Burla, do not prescribe RNTCP drugs as they consider the regimen to be flawed. According to these specialists, TB patients should be given medicines every day and not on alternate days as is done under RNTCP.
- 3.2.6 Role of shops in TB drugs' sales:** None of the stockists saw any connection between the two.
- 3.2.7 Role of doctors in increasing sales of TB medicines:** All stockists rejected the question. In fact, some stockists claimed that private doctors were sending TB patients to government health centres.
- 3.2.6 Diversion of free medicines to drug shops:** Only one stockist in Mayurbhanj replied that this practice might be prevalent in remote areas.



Patients' Views

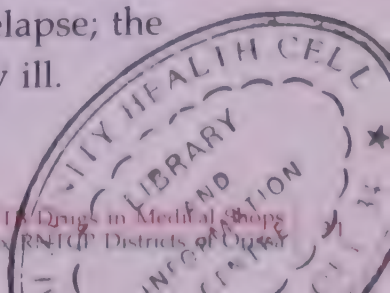
4.1 Background

4.1.1 In addition to interviewing medical shopkeepers and stockists, exit interviews were planned with patients buying anti-TB medicines from shops. However, the plan to conduct exit interviews was abandoned on finding that it could take up to a week's wait to meet just one patient. Instead of the exit interviews, it was decided to collect information about patients' whereabouts from randomly selected drug shops, then trace the patients to their house and interview them there. However, even the second method failed to work properly because it was difficult to track down the patients. Medical shops said they had very few regular customers for TB drugs and did not know where they lived (this may have been a stonewalling tactic). Consequently, instead of interviews with five patients in each district, a total of only six patients were interviewed..

4.2 Experience and Opinion of Patients

4.2.1 **Patients' Distribution:** One patient was in Sundargarh district, two in Keonjhar, and three in Sambalpur district.

4.2.2 **Patient Type:** Three of the six patients were in the smear positive category. One was smear negative, and two were extra-pulmonary cases. Only one was a case of relapse; the rest were new cases. Four patients were seriously ill.



- 4.2.3 **Drugs prescribed:** Between them the anti-TB drugs that had been prescribed included R-CINEX (1 tab daily), PYZINA-7 (1 tab daily), COMBUTOL-1 (1 tab daily), AMBISTRINE injection (1 vial, alternate days), and AKT-3 (1 kit thrice daily). The non-TB drugs prescribed included ALPROVIT syrup (2 teaspoons, twice daily), SOBRACID syrup (2 teaspoons, twice daily), DEXACORT ointment (patient with an eye problem), and SHELCOL (1 tablet daily).
- 4.2.4 **Type of doctor:** The doctors were all from the government health system. However, three of the patients had contacted their doctors at home or in their private clinic. While two patients did not know their doctors' particular specialisation, the other four doctors were a medicine specialist, TB and Chest specialist, orthopaedist specialist, and ophthalmologist.
- 4.2.5 **Treatment history:** One patient was diagnosed when he was living in Madras. He returned home and went to a doctor in Rajgangpur, Sundargarh, for treatment. Another patient who had very severe back pain had consulted the Padmapur PHI in Keonjhar, but was referred to Keonjhar district hospital where she was diagnosed with bone TB. She was immediately admitted in the orthopaedic ward, and when she felt a little better her husband was told she need not stay in the hospital and could be taken home. On his asking, the doctor prescribed AKT-3 which was bought from a medical shop. The patient did not know that free TB medicines are available in government hospitals. Her doctor did not tell her either.

One patient in Sambalpur first consulted a private doctor. On discovering he has TB, he went to the Chest and TB Department at the VSS Medical College, Burla, where he still continues with the treatment. Another patient in Sambalpur, who had taken treatment at the district hospital

six years ago, went to the VSS Medical College when he had a relapse. Still another patient from the same district went straight to the VSS Medical College. A patient in Keonjhar went to Telkoi PHI with an eye problem. He was then referred to the eye specialist in the district hospital, where he was diagnosed with TB. He underwent treatment at the district hospital. He knew that TB medicines are free in government health centres, but he had no idea he had TB till he was cured.

4.2.6 Knowledge of free treatment: Four of the six patients said their doctors had told them of the free treatment for TB.

4.2.7 Reason for availing private treatment: Yet, these four patients continued to buy the anti-TB drugs in the market. Three of them said it was because they had no faith in the quality of government medicines. One patient who had a relapse said he did not want to take a chance because six years back when he had been diagnosed with TB, he had undergone treatment at the government health centre.

4.3 Findings from the Simulated Relative (of TB patient) Method

4.3.1 Background: One of the specific objectives of the study was to find out if TB medicines are sold without prescriptions. Researchers were trained to pretend they were relatives of TB patients. A plausible story was worked out: they wanted to buy TB drugs for their elder brother who has been coughing for a month now, has become weak and thin and two days ago started spitting blood in the sputum. For the last one week he has also been running a fever off and on. Now the family was sure he has TB because their father had only recently been cured through RNTCP. The family was afraid to let the neighbours know because of the stigma. That was why they have not taken the patient to a doctor or health worker but want to buy the drugs from the medical shop.

This exercise was repeated in five shops in each of the six districts. The findings are below:

4.3.2 Types of medicines given: All the shops sold the researchers medicines without specifying whether or not they were anti-TB drugs. It was found later that only half of the shops had dispensed anti-TB drugs. None of the other 15 shops informed the researcher that they were not giving them anti-TB drugs. The TB medicines were: R-CIN, AKT-3, AKT-4, R-CINEX, ISOKIN-300, RIFACOM, COXTER-4, COMBUTOL-800, and RIMACTAZID-450. Four shops sold R-CINEX, three sold AKT-4 while two each dispensed ISOKIN and R-CIN.. The drugs sold by the other 15 shops were anti-bacterials (Alcephin, Ceft and Doxt), vitamins (BNC and Benadon), haemostatics and anti-haemorrhagics (Styptovit and Dicyclic) and syrups (Ascoril, Benadryl, Instaryl).

The detailed list of anti-TB medicines and the number of shops that sold them to researchers are given below.

District	No. of Shops	Brands of TB Drugs Sold
KEONJHAR	2	AKT-4, R-CIN
MAYURBHANJ	3	RIFACOM, R-CINEX, ISOKIN-300
SUNDARGARH	2	ISOKIN-300, COXTER-4
SAMBALPUR	2	AKT-4, R-CINEX-450
JHARSUGUDA	2	R-CINEX, AKT-3
DEOGARH	4	COMBUTOL-800, R-CIN 450, RIMACTAZID 450, AKT-4, R-CINEX
TOTAL	15	

4.3.2 Questions about symptoms: Invariably the medical shops asked details regarding the patient's symptoms. The questions covered their family history. While only one asked about the patient's occupation, two-thirds of the shops

surveyed enquired about their age. Ninety percent wanted to know why they had not approached doctors or health workers. About one-third of the shops made enquiries about the family's financial status to see if they could afford private treatment, and one-third asked whether the patient was healthy or weak.

- 4.3.4 Advice given:** About half of the 30 shops suggested to the relative that the patient's sputum should be tested while the other half suggested a chest x-ray. More than 80 percent advised the patient to see a doctor. More than 70 percent of the shops urged the family to avail of the free treatment in the government health centre. Twenty-one shops warned that the illness might not be TB. Half the shops warned that it may be dangerous to take TB medicines without a confirmed diagnosis and also because these have very strong side-effects for which the medical shops cannot be held responsible. Two-thirds of the shops gave receipts for the purchase of TB medicines. The rest declined because they were issuing medicines without prescriptions and did not want to take any risks.

This apart, several remarks that indicate the shopkeepers' concern for the TB patients were noted. Some shops recommended that the medicines should be taken for seven days (others said 10 days or one month) and if there was no improvement the patient must 'consult the doctor'. Some advised the 'patient's brother' not to lose hope as it may not be TB. One shopkeeper said that the patient should take the medicines (AKT-4) for six to nine months.





Summary and Conclusions

The study set out to identify the medical shops selling anti-TB drugs, the various brands of medicines available, the average consumption of the drugs, whether these are sold with or without prescriptions, and the type of relationship between the medical shops and the health professionals (doctors) in the area.

The information was collected by various methods including a census of all medical shops, interviews with small samples of shopkeepers, stockists and medical representatives selling TB drugs in the six districts and patients being treated by private practitioners. There were also visits to a few medical shops by researchers posing as relatives of TB patients to ask for TB medicines without prescription.

A total of 1,167 medical shops were identified and visited in the census — 643 in the rural areas and 524 in the urban areas. The average size of a medical shop was 135 sq.ft., and its average age was eight years. A total of 104 shops were found to be attached to private practitioners, of which 44 shops were in the rural areas. Only 198 rural medical shops reported the presence of a private practitioner in the area, at an average distance of 2.9 km.

All the shops were found stocking antibiotics, essential drugs, multi-vitamins and tonics. Essential medicines and antibiotics each accounted for about a third of the total sales of the medical shops, while multi-vitamins and tonics accounted for about a fifth, and anti-TB drugs accounted for about 3 percent.

About 62 percent of the shops were stocking anti-TB drugs — 81 percent in the urban areas and 46 percent in the rural areas. Of the 447 shops (38%) with no anti-TB drugs, 162 shops said they have stopped stocking them mostly because of lack of demand and the availability of free drugs. Only about one-fifth of these 162 shops were in the urban areas. On the whole, about seven percent of the total shops in urban areas had stopped stocking anti-TB drugs, compared to 20 percent of shops in the rural areas.

Three-fourths of the medical shops stocking TB medicines said they have regular TB patients. Most of them had fewer than five regular patients. Less than five percent of shops said they receive patients without prescriptions. They either show empty packs or ask for the medicines by name. Only eight shops said there were patients in the last one year who just asked for “drugs for TB”. A total of 519 shops were able to recall the names of the doctors prescribing anti-TB drugs, with a majority mentioning one or two doctors.

The anti-TB medicines of thirty seven drug companies are stocked and sold. The market leader was Lupin (62% of total sales), followed by Macleods (8%), Novartis (7%), Plethico (5.5%)

In-depth interviews with 30 shopkeepers (five in each district) covered several aspects of anti-TB drug sales. Prescriptions from doctors and demands of customers on the one hand, and profit margins, commissions, bonus, payment plan, on the other hand, were mentioned as the basis for procurement of drugs of different brands or companies. The medical representatives do not have a direct or major role in what shops stock; they inform doctors about their brands, according to the shopkeepers. About half the respondents said that medicine shops provide clinic space to doctors, who in turn direct patients to buy medicines from these shops. At times doctors were known to deliberately prescribe drugs to help shops clear out old or dead stocks and to direct patients to specific shops in return for commissions. The other observations include government supplied medicines were ‘probably’ being sold

by medical shops only in remote rural areas. Elsewhere shops would not be willing to stock them because they are considered of poor quality.

When asked why patients pay for treatment and buy medicines when they can get them free, the answers were varied: higher purchasing power of people, longer distance to government health centres, long waiting time to see doctors, non-availability of new drugs, and the perceived inferior quality of government supplied medicines. Shopkeepers were also asked if TB patients are being diverted to private clinics from government health centres. The general feeling was that while it may be happening, there is an increasing tendency among patients to seek private treatment in the belief that only when they are paid will doctors provide better service and effective medicines. A few medical shops asserted that doctors do encourage patients to see them privately, but only after they have judged the patients' paying capacity. Most shopkeepers were aware of the availability of free treatment and medicines for TB in government health institutions in the six RNTCP districts, but only a few could give the names of the free drugs. None of them could recall a case of deliberate diversion of TB patients or drugs from the government health centres, but two cases were cited of patients who resorted to private treatment, one because free drugs were not available and another where the patient could not go to a DOT provider regularly.

All of the 13 stockists interviewed denied entering into agreements with either the medical shops or the doctors to promote their brands of anti-TB drugs. There was consensus that demand for anti-TB drugs has fallen in the last one to three years, mainly in the rural areas, after the implementation of RNTCP. The decrease was quantified at 10 percent to 60 percent of the pre-RNTCP demand. A few stockists stated that the demand for all products made by the Lupin company, mainly the AKT group of drugs, has not decreased. When asked, why TB patients turn to private treatment, the stockists had many reasons including that patients are not

aware of free medicines, some (who can pay) prefer private doctors, government supplied medicines are considered to be of poor quality, and specialist doctors (in the VSS Medical College, Sambalpur) do not consider the RNTCP dose and regimen as appropriate. All stockists denied knowledge of diversion of patients or medicines from the government health system to private shops or doctors, and instead said that some private practitioners have persuaded poor patients to avail of the free treatment provided by the government.

For the feedback from patients, interviews were conducted with six patients who were being treated privately (though 30 patients should have been interviewed, only six could be located). Three of them had gone directly to private practitioners and one was a case of relapse. Two others were referred by PHIs to specialists in district hospitals as they also had other problems and they met these doctors in their homes. The doctors informed four of the six patients about the availability of free TB treatment. While three patients said they had no faith in the quality of government medicines, one did not go as he blamed his relapse on the inferior quality of medicines that he had taken six years ago from a government health centre.

To find out whether anti-TB medicines can be bought without prescriptions, researchers pretending to be the younger brother of a TB patient approached 30 medical shops (five in each district), and asked for TB medicines (without mentioning the name of any medicine). All the shops sold them medicines, but only half were anti-TB drugs. Other medicines sold were anti-bacterials, vitamins, haemostatics, anti-haemorrhagics and syrups. The anti-TB drugs include R-CINEX, R-CIN, AKT-3, AKT-4, ISOKIN-300, RIFACOM, COXTER-4, COMBUTOL-800, and RIMACTAZID-450. The medical shops did ask them to describe the symptoms and their onset, and other questions such as whether the family had a history of TB and why the patient had not been shown to a doctor. Other questions asked by a minority of drug shops included age and

occupation of the patient, his health status, and whether he could afford private treatment. The shopkeepers showed concern for the patients and advised that their sputum be tested or chest x-ray done (15 shops each) and that they consult a doctor. Twenty-one of the 30 shops suggested the patient take free treatment from a government health centre. Some also warned that it may not be TB, in which case it would be dangerous to take medicines because of their strong side effects. They said that if the patient showed no signs of improvement after seven days of treatment, a doctor must be consulted. One-third of the shops refused to give a receipt for the medicines sold, because they were not willing to take a risk given the lack of a doctor's prescription, the seriousness of the disease and the nature of the medicines.

In summary, the study found that:

- 62 percent of medical shops stock anti-TB drugs — 46 percent in the rural areas and 81 percent in the urban areas;
- 20 percent of rural medical shops and seven percent of urban medical shops had stopped stocking anti-TB drugs, reportedly because of RNTCP;
- medical shopkeepers thought increasing numbers of patients felt they had to pay doctors to ensure good treatment;
- it was possible to buy anti-TB drugs without prescriptions, even though shops reported this was rare;
- equal numbers of shops approached without a prescription advised a sputum test or a chest x-ray for the patient.

Design and Printing:

New Concept Information Systems Pvt. Ltd., New Delhi

Phone: 6972748, 6972811

COMMUNITY HEALTH CELL

Library and Information Centre

No. 367, Srinivasa Nilaya, Jakkasandra,
I Main, I Block, Koramangala, Bangalore - 560 034.

THIS BOOK MUST BE RETURNED BY
THE DATE LAST STAMPED

--	--	--

